HD
266
.O7A5
1937

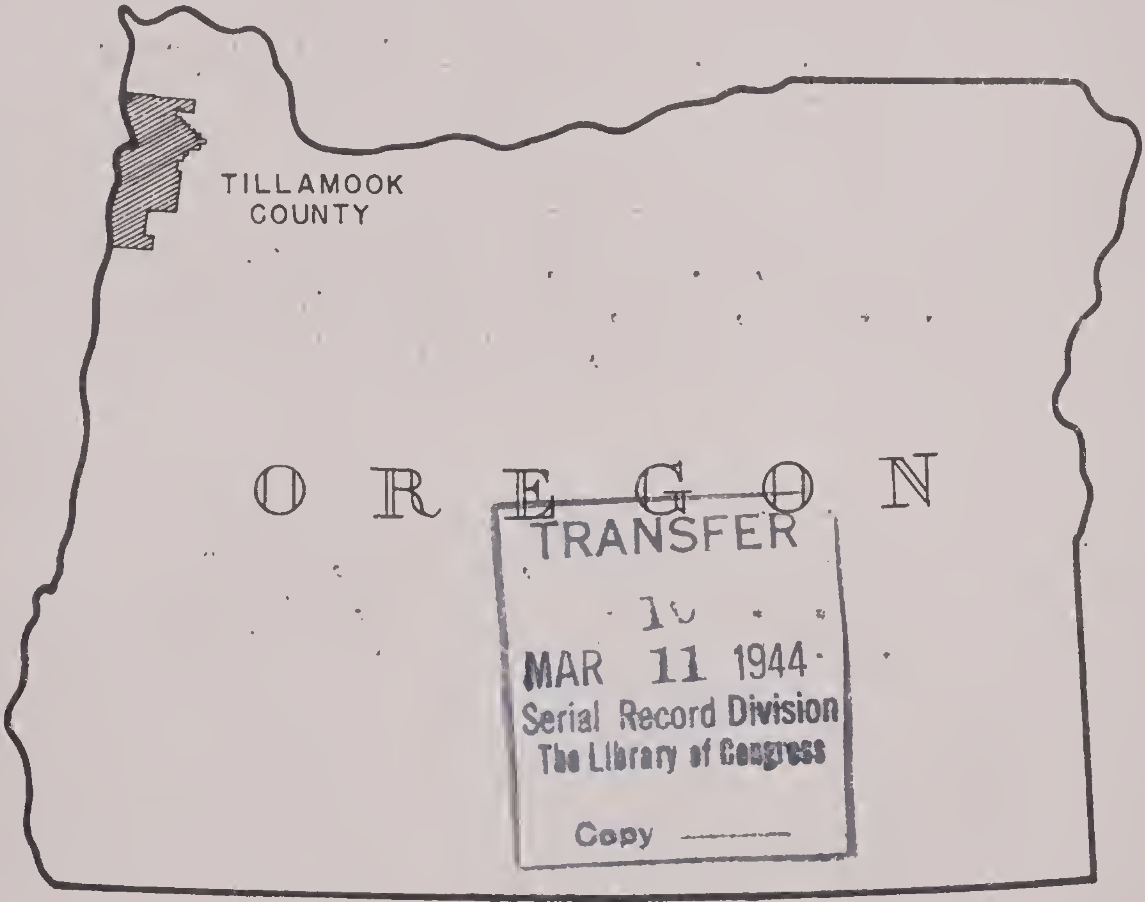
U.S. Resettlement Administration, Region 11

A LAND USE STUDY OF TILLAMOOK COUNTY, OREGON.

THE LIBRARY OF CONGRESS
1800

Appd. D.F. 65-14-7230
d.f. 165-94-6363

A LAND USE STUDY
of
TILLAMOOK COUNTY, OREGON



TRANSFER
MAR 11 1944
Serial Record Division
The Library of Congress
Copy

Farm security administration

U.S. DEPARTMENT OF AGRICULTURE
RESETTLEMENT ADMINISTRATION, REGION 11
JUNE 1937

RESEARCH LIBRARY

HD 266
.O7A5
1937

RESETTLEMENT ADMINISTRATION

REGION XI

Walter A. Duffy, Regional Director

LAND UTILIZATION DIVISION
Harry G. Ade, Assistant Regional Director

LAND USE PLANNING SECTION
H. E. Selby, Regional Chief
R. E. Bell, Head, Land Classification Unit
Ralph E. Reynolds, Agricultural Economist

STATE LAND PLANNING SPECIALISTS
Carl Tjerandsen, Moscow, Idaho
J. C. Moore, Corvallis, Oregon
E. F. Landerholm, Pullman, Washington

~~14367~~

6 Fe 44

TABLE OF CONTENTS

Page

SUMMARY - - - 2

INTRODUCTION - - - 3

- Early History - - - 3
- Problems - - - 5
- Objective and Procedure of Study - - - 7

LAND USE CLASSIFICATION - - - 8

- Land Classes - - - 9
- Description of Individual Areas - - - 12

FACTORS IN LAND CLASSIFICATION - - - 18

- Physical Factors - - - 18
  - Climate - - - 19
  - Topography - - - 20
  - Soils - - - 20
  - Drainage - - - 22
  - Accessibility to Markets - - - 22
- Economic Factors - - - 22
  - Present Land Use - - - 22
  - Land Ownership - - - 23
  - Public Improvements - - - 26
  - Other Factors - - - 26

TRENDS IN LAND USE AND COUNTY DEVELOPMENT - - - 26

- Agriculture - - - 26
- Lumber Industry - - - 32
- Recreation - - - 34

PUBLIC FINANCE - - - 35

- County Indebtedness - - - 35
- Land Assessment - - - 35
- Assessed Values - - - 37
- Tax Levies - - - 37
- Tax Collections - - - 37

RURAL ELEMENTARY SCHOOLS - - - 40

LAND USE POLICIES - - - 43

RESOLUTION - - - 46

SUMMARY

This study has resulted in a proposed classification of land in Tillamook County, Oregon, as to desirable uses for the next decade or two. The land is tentatively classed as (1) agricultural, (2) supplemental agricultural, (3) forest, and (4) residential and resort areas.

The data presented indicate possibilities for the county to build up its diminishing tax base, place the forest areas on a more permanent basis, add materially to the farm lands and farm income of the county, and increase the population engaged in both agriculture and the timber and lumber industry.

It is believed that this proposed land classification will serve to indicate the areas where agricultural development should be encouraged; where public facilities, such as roads, schools, telephone and electric lines, will repay their cost in ultimate benefit to the county; and where forestry, recreation, wildlife conservation, and other uses beneficial to the public would constitute a preferable use.

The projection of this land classification study into practical action programs will necessarily require the cooperation of all agencies, private as well as public, and of all individuals interested in the economic welfare of Tillamook County.

This land classification in no way replaces a detailed soil survey such as the U. S. Bureau of Chemistry and Soils has made in some Oregon counties. Such a survey of Tillamook County is greatly needed.

A LAND USE STUDY OF TILLAMOOK COUNTY, OREGON

by

Ralph E. Reynolds

INTRODUCTION

Early History*

Tillamook County, located in the northwestern part of the State of Oregon, is approximately 51 miles long and 30 miles wide and, according to the 1935 U. S. Census figures, contains 723,629 acres of which 87,266 acres are in farms, including 24,262 acres of improved farm land. Forest lands, including cutover and burned-over areas, constitute approximately 88 percent of the area of the county.

Tillamook County's first white settler was Joseph C. Champion, who with two companions came on a whaling boat from Astoria in 1850, nine years before Oregon became a state and three years before Tillamook County was created from Yamhill and Clatsop Counties. He settled near an Indian village on Kilchis Point.

---

*Early history information obtained from the "Historical Record Survey of the Works Progress Administration" by Mrs. Marguerite Stasek.

Acknowledgments: This study has been made possible through the cooperation of the Regional and state staff of the Land Use Planning Section, Resettlement Administration, Region XI; staff members of the Pacific Northwest Forest Experiment Station; U. S. Forest Service; Oregon State Planning Board and Tillamook County Planning Commission; Tillamook County Court and other county officials and citizens; County Agricultural Agent and the Division of Agricultural Economics and the Soils Department of Oregon State College; and the Works Progress Administration. To these and others who have assisted in the collection of data, the writer is indebted.

The only open areas in the county were the tidelands and prairies. The first donation land claims were filed on prairie land leaving the heavily timbered rich river valleys for later settlement. Old timers tell how they envied those who owned the open country, but once the valleys were cleared of trees and brush, the first farm crops proved that the land was valuable for agricultural purposes.

The early settlers suffered many hardships. It is reported that during a food famine in the early days, several families were compelled to dig up their seed potatoes for food.

When the country was first settled, the principal means of transportation was by boat, but as marketable products increased, water transportation proved inadequate since boats were often bar-bound for weeks at a time. As settlement increased, road building took place in response to the urgent demand of farmers in all parts of the county. In 1911 the Southern Pacific Railroad built a line from Portland to Tillamook, and with its completion the timber industry developed rapidly.

As the county was further settled, public facilities developed until today all of the more densely populated sections are served with good roads, schools, rural free delivery routes, and electric and telephone systems.

In 1886 an agricultural association was organized to buy and sell farm products and to conduct a cooperative store. Only one member of each household could own a share of stock.

Dairy herds had increased and some disposition had to be made of the increasing milk supply. Butter packed in firkins had always found a market, but the supply often exceeded shipping facilities.

Farmer dairymen now began to experiment with cheese making. In 1894

Peter McIntosh, called the "Father of Cheddar Cheese", came to the county and taught the art of cheese making. The industry soon proved successful. Many small factories were soon established, and in 1909 these were organized into a cooperative for the purpose of buying feed and supplies, marketing the cheese, and insuring a uniform product under competent inspectors. The production of milk for cheese became so profitable that there was soon a demand for more grazing land. Clearing of land by machinery became a profitable business, and land prices advanced rapidly.

Settlement has taken place chiefly in the three main areas of bottom land--namely, the Nehalem Valley in the northern part of the county, the district surrounding Tillamook City, by far the largest, and the Cloverdale section. The remainder of the farming area in the county is in the narrow valleys along the streams and in small scattered sections. Although scattered settlement is not confined to any one part of the county, there is more of it in the Blaine District than in any other area. Land purchases by the Resettlement Administration will remove many of the scattered settlers from this district, but many will remain on holdings inadequate to support a family without supplementary income.

Problems

Major problems facing Tillamook County today are:

(a) A decreasing tax base due largely to the removal of timber through logging operations and forest fires, which forces the support of county finances upon other taxable values.

(b) Increase in county-owned land due to excessive tax delinquency.

(c) Scattered settlements requiring high public expenditures for roads, schools, and other services.

(d) Stranded groups in abandoned industrial areas.

Tillamook County's decreasing tax base is due largely to the loss of its timber through logging operations and forest fires. The significance of timber lands in the county's tax base is evident from the fact that these lands including cut-over and burned-over sections constitute 90 percent of the county's land area. A disastrous fire in 1933, burning over approximately a quarter of a million acres, made heavy inroads into the county's tax base. The assessor's records indicate that from 1930 to 1936 the assessed values of timber lands in the county decreased approximately 63 percent while other values decreased only 39 percent. Cut-over and burned-over areas yield only a fraction of the former revenue.

Tillamook County's problem of increasing publicly-owned lands is closely tied up with her decreasing tax base. The lands reverting to the county through tax foreclosure are for the most part cut-over and burned-over areas. Thirty-seven percent of the land area of the county is at present held in public ownership by the county, state, or Federal government. This figure will increase because more tax delinquent lands will revert to the county. The most trying problems confronting the county authorities are those involved in the effective administration and disposal of these county-owned lands with a view to future timber supplies, public revenue, and settlement for farm purposes.

The problems of scattered settlements and stranded groups are closely interrelated, having a common origin. Homesteading in Tillamook County in isolated areas and on non-productive lands has resulted in low personal and family income and in high public expenditures for schools, roads, and other facilities in those sections. In the past many of these settlers were able to make a living by supplementary employment in logging camps and

sawmills, but as the timber disappeared, many of these people have been thrown on relief. In a number of sections residents are literally stranded in remnants of sawmill centers and logging camps.

Objective and Procedure of Study

This study was made at the suggestion of the Tillamook County Planning Commission and other agencies and as a part of the authorized program of the Resettlement Administration for promotion of better land use.

A principal object of this study was to gather and analyze information on the natural resources and economic conditions in Tillamook County, which may assist in guiding public authorities in the most effective utilization of its resources.

The division of lands in Tillamook County into four generalized land use classes--namely, agricultural, supplemental agricultural, forest, and resident and resort areas--is based on correlation of physical and economic factors pertaining to land use.

In making the classification a present land use survey was made of all agricultural areas and adjoining lands. This was followed by a reconnaissance field study of the soils in these areas to determine their physical characteristics such as texture, depth and topography, and their adaptability for agricultural use. Economic factors such as access to roads, schools, and other public facilities were taken into consideration. This information was supplemented by data obtained from local residents, county officials, the County Agent, and others familiar with county problems. (Discussion of the various physical and economic factors that were studied is reserved for a later chapter.)

The delimitation of the desirable land use areas was made by field examination of the areas and designation of the proposed area boundaries on the county present land use map, major consideration being given to topography,* soils, and accessibility. The proposed classification was checked and revised in consultation with informed individuals such as the County Agricultural Agent, State Forester, and representatives of the U. S. Forest Service. The classification in final form was officially approved in a session of the County Planning Commission and county court.

LAND USE CLASSIFICATION

This classification represents broad, generalized areas in which a majority of the lands are adapted to a certain type of use but within which there necessarily are small tracts unsuited to the indicated use. It is thought that it may serve as a guide for interested public agencies and individuals in planning the use of land in Tillamook County. The generalized land use indicated is not an objective for immediate attainment but rather a goal for the orderly development of the county during the the next decade or two. It must be recognized that any long-term planning of land use must be flexible enough to meet changing economic and physical conditions and that revision of the plan will be necessary as conditions change.

---

*In this report the following general classes were used to express the topographic conditions:
(1) Flat or relatively level.
(2) Gently rolling or gently sloping.
(3) Moderately rolling or moderately sloping.
(4) Strongly rolling or strongly sloping.
(5) Steep, rough, or mountainous.

Land Classes

The outstanding characteristics and qualifications of each of the four land classes are presented in the following pages. A graphic presentation of these areas appears in Figure 1.

1. Agricultural Areas. Agricultural areas include the land adapted to the growing of coast region crops and are either of sufficient extent to support 10 or more families per area or are so located relative to roads and schools that their settlement would not entail additional expense for public services.

The more common physical and economic characteristics of the agricultural areas are as follows:

a. Topography relatively level to gently sloping.

b. Deep soils of a fine sandy loam to a silty clay loam.

c. Good drainage, or possibilities for economical drainage.

d. Soils of high fertility.

e. Public facilities, including roads and schools, reasonably available.

f. Accessible to markets.

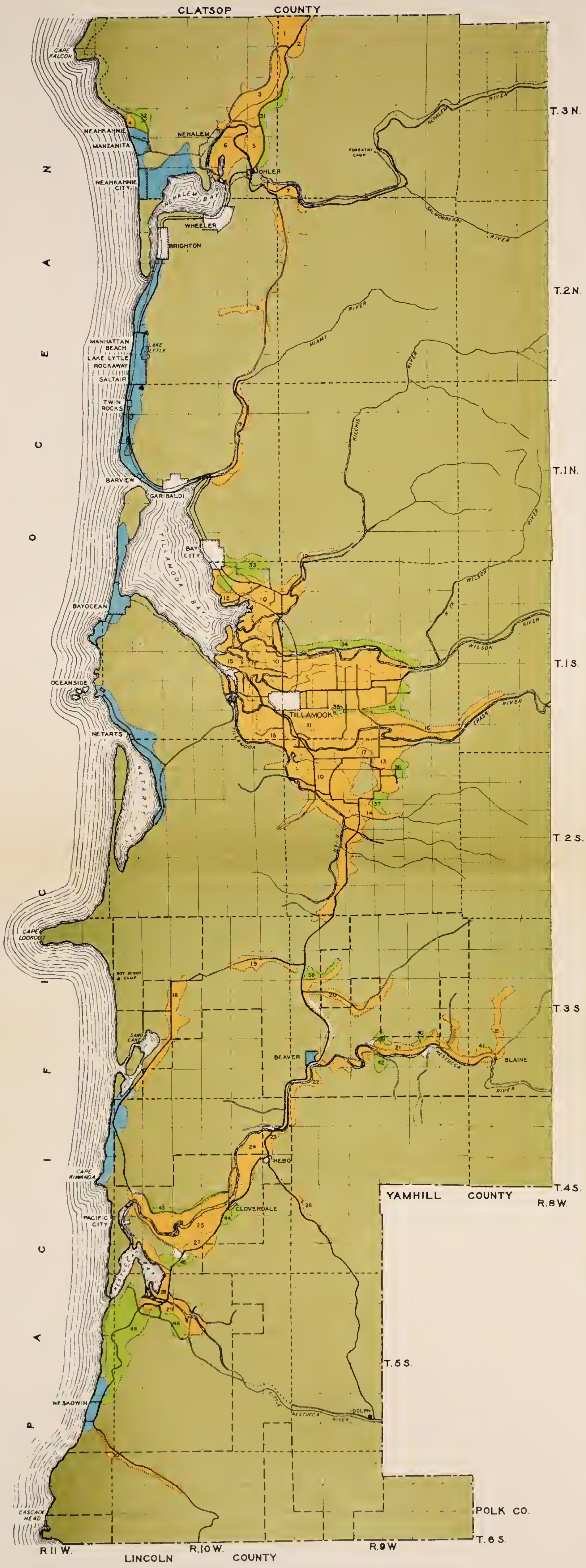
g. Tax delinquency not a serious problem.

h. Response to irrigation during July and August where application of water is feasible.

i. Potential ability to support one family on every 30 acres of the better soil types or their equivalent.

Since within the agricultural areas there are small tracts of land that do not meet the above description, settlement for agricultural purposes should be made only after careful examination of the specific tract and advice of the County Agricultural Agent.

RECONNAISSANCE LAND USE CLASSIFICATION



LEGEND

- 🟧 AGRICULTURAL LAND
- 🟩 SUPPLEMENTAL AGRICULTURAL LAND
- 🟦 RESIDENTIAL & RESORT AREAS
- ▨ FOREST AREAS

DESCRIPTION OF AREAS

SOILS KEY	SURFACE SOIL	SUBSOIL	TOPOGRAPHY	DRAINAGE	REMARKS
1-3	Brown silt loams or fine sandy loams	Yellowish brown silt loam to fine sandy loam	Level bottoms	Generally inadequate	Partially developed
2	Dark brown or black silt or silty clay loam	Yellowish silty clay loam	Gently sloping or rolling benches	Somewhat retarded	Mostly uncleared
4	Dark brown silt loam	Light brown gravelly silt loam	Gentle sloping bench	Generally good	Fully developed- water for irrigation available
5	Black or dark brown silt loam	Light colored silt loam or silty clay loam	Gently sloping bottoms	Generally inadequate	Partially developed
6-28	Shallow brown silt or silty clay loam	Gray or blue clay	Flat bottoms	Generally poor -- high water table	Practically all cultivated
7-8-9	Brown fine sandy loam	Brown fine sandy loam occasional gravel beds	Gently sloping small valleys	Generally good	Partially cleared- water for irrigation available
10-17	Brown fine sandy loams or black silt loams	Brown fine sandy loams or yellowish silty clay loams	Level bottoms or gently sloping bench	Generally good	Nearly all developed at present
11	Brown silty clay loam	Gray clay loam	Flat bottoms	Generally inadequate	Mostly undeveloped
12-16 & 21	Brown silty clay loam	Light brown gravelly silty clay loam	Gently sloping or rolling benches & slopes	Generally good	Partially developed
13	Brown or dark brown silt loam or silty clay loam	Light brown silty clay loam or semi-cemented gravelly subsoil	Flat to gentle sloping bench	Varies from poor to good	Mostly cultivated
14	Black silt loam	Brown gravelly loam often semi-cemented	Fan shaped gentle slopes numerous drainage ways	Good	Mostly developed
15	Brown or black silt loam or silty clay loam.	Gray clay	Flat bottom	Generally poor - high water table	Partially developed
18-19 20-22	Brown silt loam or fine sandy loam	Light brown fine sandy or gravelly loam	Gentle sloping small valleys	Generally good	Partially cleared
23-27	Dark brown or black silt loam	Gravelly silty clay loam	Gently rolling or sloping benches	Good	Mostly covered by brushes and stumps
24-25	Brown to dark brown silt loams or fine sandy loams	Light brown silt loam or fine sandy loam	Level bottoms	Generally good includes poorly drained areas	Partially developed
26-30	Brown fine sandy loam	Brown fine sandy loam or gravelly loam	Gently sloping small valleys and slopes	Generally good	Partially cleared
29	Dark brown or black silt loam	Light brown silt loam or silty clay loam	Level bottoms	Varies from inadequate to good	Mostly developed
31	Brown gravelly silty clay loam	Yellowish stony clay loam	Low hill slopes	Good	Mostly covered by brush and stumps
32	Black silt loam or gravelly silt loam	Yellowish gravelly silty clay loam	Moderately to strongly rolling hills	Good	Natural grass land with small fir thickets
33-35 & 38	Black silt loam	Yellowish silty clay loam	Low rolling hills	Good	Partially cultivated natural grass land
34	Dark brown gravelly silty clay loam	Light brown gravelly silty clay loam	Low hill slopes	Good	Mostly covered by alders and brush
36-37	Black silt loam	Light brown silty loam	Gently rolling hills	Good	Mostly covered with alders
39-40 & 41	Dark brown silty clay loam	Light brown gravelly silty clay loam	Low hill slopes	Good	Mostly covered with alders brush & stumps
42	Brown gravelly silt loams or silty clay loam	Light brown gravelly silty clay loam	Moderately sloping valley	Generally good	Mostly covered with alders or small timbers
43-44	Brown silty clay loam	Yellowish stony silty clay loam	Low hill slopes	Good	Mostly covered with alders st
45-46	Black silt loam	Yellowish brown silty clay loam	Moderately to strongly rolling low hills	Good	Partially developed remainder in alders and small fir
▨	Variable often shallow	Variable often bedrock	Rough broken mountainous	Variable generally good	Mostly timber brush or burned over

LAND USE STUDY OF TILLAMOOK COUNTY OREGON

LAND USE PLANNING SECTION, RESETTLEMENT ADMINISTRATION
IN COOPERATION WITH
OREGON STATE AGRICULTURAL EXPERIMENT STATION
PACIFIC NORTHWEST FOREST EXPERIMENT STATION

1937

NOTE.
THE EASTERN PORTION OF THE COUNTY NOT SHOWN IN THIS MAP IS ENTIRELY FOREST AREA

FIGURE I

2. Supplemental Agricultural Areas. These areas include lands which can be used successfully in conjunction with agricultural areas but generally are not capable of independently supporting an economic farm unit in the absence of low-cost irrigation and fertilization. These lands generally possess the following characteristics:

a. Topography moderately to strongly rolling.

b. Surface soil of variable depths, frequently shallow.

c. A serious soil erosion hazard when cultivated.

d. Tendency to drouth during dry summer months in absence of irrigation.

3. Forest Areas. These lands are chiefly valuable for forest uses, including timber production, forest recreation areas, and forest coverage as a protection against excessive soil erosion and water losses. In the main these areas have the following characteristics:

a. Topography rolling to rough.

b. Soils often shallow and stony, low in organic matter and usually high in acidity.

c. Drainage often excessive.

d. Generally inaccessible to good roads and markets from the standpoint of agricultural use.

e. Inadequate or no public facilities.

f. Coverage of merchantable timber, second growth, stumps, brush, or lowland hardwood.

g. High tax delinquency.

h. Wide variations in assessed valuations.

i. General adaptation to good tree growth.

The forest areas contain occasional tracts of fertile lands which are too small to support 10 or more families per area, or are so located

relative to roads and schools that their settlement would entail unjustifiable public expense, or are so located relative to the forest that settlement would unwarrantedly increase the fire hazard to life and property.

4. Residential and Resort Areas. Residential areas include the established villages and cities of the county, whereas the resort areas include the lands along the seacoast desirable for summer homes or resort development.

Desciption of Individual Areas

A description of the individual land areas in each of the four different classes follows. The identification of the area on the map, Figure 1, is by number.

Areas 1 and 3 are located in the extreme northern part of the county, and contain brown to dark brown silt loam or fine sandy loam over a silt loam or fine sandy loam subsoil. They are partially developed at the present time; the undeveloped portion covered by large stumps and thick brush, in general, has retarded drainage but could be adequately drained at relatively small cost. Soils are desirable for agricultural use and capable of growing a wide variety of crops. These areas are served by an oiled and gravelled road.

Area 2 occupies the footslopes and terraces in the northern part of the county. The soil is a brown or black silt loam or silty clay loam over a lighter colored subsoil. Very little of it is cultivated at present. The topography is sloping to rolling.

Area 4 is a small area of sloping terrace or footslope land located just north of Neahkahnie with a deep, gently sloping, silt loam soil.

Water for irrigation frequently is available from springs and streams in the nearby hills. It is served by a dirt road.

Area 5, located west and north of Mohler, consists of dark brown or black silt loam with a light colored silt loam or silty clay loam subsoil. It is gently sloping, but in general drainage is poor. Cover is chiefly stumps and brush or alders at the present time. Drainage should be but a minor problem after clearing. It is served by an oiled state highway.

Area 6, the alluvial bottom east of Nehalem, has a brown silt loam over a gray or blue clay loam or clay subsoil. The topography is flat, and drainage is poor which puts it at a disadvantage, as it cannot be worked until late in the spring. This area produces a heavy crop of grass during the time of the year when conditions are favorable.

Areas 7, 8 & 9 include three small areas along the Miami River and Foley Creek. The soils are alluvial stream soils or footslope soils and are chiefly of a fine sandy loam with fine sandy loam subsoils. These three areas are partially developed at present. The unsettled remainder is covered either with brush and stumps or with small patches of spruce. Water is easily available for supplementary irrigation. It is served by a gravelled road.

Area 10 is the largest body of agricultural land in the county and surrounds the town of Tillamook. Area 17 is a small area near Area 10 having the same characteristics. The soils vary from alluvial valley soils of a brown silt loam or fine sandy loam to the black silt loam terrace of gently sloping topography. The territory is well traversed with oiled, paved, or gravelled roads, and all public facilities are available. Drainage is good over most of it. The greater part of this land is under

cultivation, but the remaining small patches of brush and stumps should be removed to permit full utilization of the land.

Area 11 is a small, poorly drained section southeast of Tillamook, has a brown silt loam over a gray clay subsoil. This land may be cleared of its present covering of large stumps and drained and put to more intensive use.

Areas 12, 16, & 21 consist of a narrow strip of footslope land in the Kilchis River Valley. It also includes narrow valleys up the Trask and Nestucca Rivers. It has brown silty clay loam over a gravelly silty clay loam subsoil. The topography is gently sloping with good drainage. Some of this area is farmed at present and the remainder is in alders and brush.

Area 13 includes the old terrace south of the Trask River. It has a brown or dark brown silt or silty clay loam over a compact, often semi-cemented subsoil. Drainage is adequate to restricted. Many small bodies of agricultural soil are found here. Most of this area is under cultivation, and the remainder, which is poorly drained, is in brush and stumps. It is served by several gravelled roads.

Area 14 is an alluvial fan in which the surface soil is a black silt loam over a gravelly subsoil, often cemented to form what is locally known as "hardpan." Cut by numerous stream channels, the land is well drained. It is reached by a paved highway.

Area 15 takes in the large acreage just west of Tillamook. The soil is a brown or black silt or silty clay loam over a gray clay subsoil. It is protected from overflow by dikes. The drainage in general is poor, as the water table is high. Nearly half of the area is farmed, and the

remainder is in small timber or brush and stumps. It is accessible from gravelled roads.

Areas 18, 19, 20 & 22 include three alluvial stream valleys north, south, and west of Beaver and one east of Sand Lake. They vary in width from a few hundred feet to half a mile. The soil is chiefly a silt loam or a fine sandy loam over varied subsoils. These valleys are partially cleared at present, and the remainder is utilized as supplementary pasture. All are traversed by oiled or gravelled roads.

Areas 23 & 27 consist of a small terrace just north of Hebo and the rolling footslope and terrace south of Cloverdale. The terrace north of Hebo has a brown or black silt loam surface over a light brown stony clay loam subsoil. The topography is rolling, and the drainage is good. It is used as a non-plowable pasture at the present time. In the rolling footslope and terrace south of Cloverdale, the soil is a dark brown silt loam over a gravelly silty clay loam subsoil. The topography is gently rolling or sloping, and drainage is good. About one-half of the area is cultivated, and the remainder is logged-off land, some of which is used for non-plowable pasture.

Areas 24 & 25 contain the alluvial bottom lands adjoining Hebo and Cloverdale, drained by the Nestucca River. The soils consist of brown silt loams or fine sandy loams, the larger part developed at present and the remainder in stumps and brush. Small localized areas have retarded drainag which could be easily improved. This area is served by an oiled highway and gravelled roads.

Areas 26 & 30 take in two narrow alluvial stream valleys, one south of Hebo and one south of Neskowin. The surface soil is a brown fine sandy

loam with a variable subsoil. Small fields are in cultivation, and the remainder is in brush and stumps.

Area 28 is the flat area adjoining Nestucca Bay and has a brown silty clay loam over a gray clay loam subsoil. The water table is high, but the area is protected by dikes. It is all under cultivation at present. Numerous small slough channels serve as drains. It is reached by an oiled highway.

Area 29 includes the land east of the highway along the little Nestucca River. The soil is a brown or black silt loam over a lighter colored subsoil. Drainage is good to retarded, but easily corrected. The larger part of this area is in farm land, and the remainder is used as supplemental pasture. Gravelled roads serve this area.

The supplemental agricultural lands include areas 31 to 46 inclusive.

Area 31 consists of the moderately sloping or rolling footslope north of Mohler. It is a gravelly silty clay loam soil with a stony clay loam subsoil. Part of this type is used as non-plowable pasture, and the remainder is logged-off land.

Area 32 takes in the moderately to strongly rolling lands along the coast north of Manzanita. It is partly in natural grass land and has a black silt loam over a light colored silty clay loam subsoil. The remainder is in scattered fir thickets with a brown silt loam over the light colored subsoil. Drainage is good.

Areas 33, 35 & 38 include three bodies of rolling hill lands--one adjacent to Bay City; one east of Tillamook; and one adjoining Hemlock. These are mostly natural grass lands. The surface soil is a black silt loam over a light colored silty clay loam subsoil. The topography is

rolling, and drainage is good. Part of the areas are cultivated, and the remainder is in stumps and brush or small timber. It is served by gravelled roads.

Area 34. The topography of the footslope north of Wilson River is moderately to strongly sloping, and the drainage is good. The surface soil is a dark brown silt loam to gravelly silty clay loam over a gravelly silty clay loam subsoil. A gravelled road serves this district.

Area 36 is the low rolling hill land with a dark brown silt loam surface soil over a light colored subsoil. The surface soil is rather shallow. Drainage is good. Most of the area is covered with a thick growth of alders.

Area 37 is low rolling hill land consisting of a black silt loam surface soil over a light colored subsoil. The topography is moderately to strongly rolling. Drainage is good. Nearly half of the land is in pasture, and the remainder is in a moderately heavy growth of small or medium-sized timber.

Areas 39, 40 & 41, the moderately sloping footslopes found in three small areas up the Big Nestucca River, have brown gravelly silt loam or silty clay loam surface over light brown gravelly silty clay loam subsoils. Drainage is good. This area is covered with alders or small timber at present.

Area 42 is low hill lands. The soil is dark brown in color with a light brown stony clay loam subsoil and good drainage. The topography is moderately sloping or rolling. A small part of this area is cultivated, and the remainder is in alders or non-plowable pasture.

Areas 43 & 44 consist of the two footslopes found northwest of and adjoining Cloverdale. These lands have a dark brown silty clay loam surface over a light colored, stony, silty clay loam subsoil. The topography is moderately to strongly sloping. They are mostly covered with alders at present.

Areas 45 & 46, consisting of rolling hill lands just north of Neskowin, have soils which are variable but consist chiefly of a black silt loam over a yellowish brown silty clay loam. Parts of this area are natural grass land, and much of the remainder is well suited to the growth of pasture when cleared. The topography is moderately to strongly rolling, and drainage is good. Nearly a quarter of this area is now used for farming, and the remainder is covered with small timber, alders, or stumps and brush. It is served by an oiled state highway. Best success is attained when lands are irrigated and fertilized.

Forest Areas. Small tracts of tillable land within the forest areas were classified as forest lands due to their inaccessibility and the fire hazards created by settlement. Other small areas adjacent to agricultural sections were classified as forest lands because of their too strongly rolling topography and consequent danger of serious erosion if placed under cultivation. The areas of moving to semi-stable dunes found along the coast were also placed in forest classification, although it is recognized that these areas are not suitable for forest use unless soils are stabilized. A soil erosion control program of planting of grasses and shrubs to stabilize the dunes would be desirable for these areas.

FACTORS IN LAND CLASSIFICATION

Physical Factors.

The principal physical factors taken into consideration in this land

classification were climate, topography, soils, drainage, native vegetation, and accessibility to public facilities and markets. A discussion of each of these follows:

1. Climate. Data taken from the U. S. Weather Bureau reports over an 18-year period (1898 to 1920 inclusive, but omitting the years 1912 to 1916 inclusive)* give the latest average killing frost in the spring as May 5 and the earliest average killing frost in the fall as November 3 with an average frost-free growing season of 182 days. During the above period the latest killing frost occurred on June 29, 1898 and the earliest killing frost on September 25, 1908 with a frost-free growing season in these years of 144 and 151 days respectively. The above data is based upon observations taken in the agricultural areas of the county exclusive of any mountainous regions.

Records provided by the U. S. Weather Bureau for 34 out of the 40 years from 1869 to 19[illegible] indicate the average monthly and annual precipitation as follows:

January	14.07	inches
February	12.00	"
March	10.73	"
April	6.94	"
May	5.09	"
June	3.60	"
July	1.37	"
August	1.48	"
September	4.76	"
October	7.33	"
November	14.36	"
December	14.20	"
Annual	95.93	"

---

*Data for the years 1912 to 1916 were not available.

The rather meagre precipitation during the summer months is a limiting factor in the use for pasture of shallow hill soils that dry out quickly.

2. Topography. The topography is typical of the uplifted, unglaciated coastal terrain. Erosion has been severe leaving rough, rugged mountains with deep, narrow, stream valleys. During the period of severe erosion, massive benches were built up by the swift-flowing streams. These were, in part, removed by subsequent stream action leaving the present gently sloping benches. The fast-flowing mountain streams have formed level stream bottoms or valleys near the seacoast.

The low hills not so strongly eroded, have a rolling topography. While the topography of the low hills is suitable for grazing, the soil mantle is generally shallow, and serious erosion is likely to occur where the protective cover is removed or destroyed.

3. Soils. The soils that are under cultivation at the present time are for the most part very fertile and are used almost exclusively for the production of pasture and [illegible]. Practically no small grains are grown.

A detailed soil survey of Tillamook County, although very desirable, has never been made; therefore, a field soil study* was made of the western part of the county where most of the agricultural land lies.

The soils of Tillamook County can be grouped into four general classes as follows:

---

*Unpublished data of R. E. Bell, Regional Soil Technologist, and C. H. Dwyer, Assistant Regional Soil Technologist, Resettlement Administration, Region XI, Portland, Oregon. Soil data appearing above in section on "Land Classes" is taken from this survey.

(a) Tide, Marsh, and Swamp Soils--diked or undiked. The recent bottom soils have dark peaty silty loam and mottled grayish silt loam to silty clay loam subsoils and some areas of woody peat. These soils are deep, friable, well supplied with organic matter, and nearly neutral in reaction.

(b) Bank or Bottom Soils. These occur along major streams where sandy material was deposited nearest the stream, forming the higher, firmer, better drained land, with slightly undulating surface. It is well-suited to crop rotation with legumes and to supplemental irrigation with some leveling.

(c) Prairie or Bench Soils. These soils consist of the gently sloping bench soils with brown or black silt loam or silty clay loam surface over light colored silty clay loam subsoils, or black to black silt loam surface soils over gravelly or semi-cemented subsoils and the gently sloping fan-shaped bodies of soil built up by small mountain streams with a black silt loam or gravelly silt loam surface soil over gravel or semi-cemented gravel subsoils. These soils are distinctly acid and respond to phosphates after liming. This group includes footslope soils with a brown silt loam or gravelly silty clay loam surface over a light brown silty clay loam or clay loam subsoil.

(d) Hill Soils--gently sloping to steep. These soils consist of low hill soils with a dark brown or black silt loam surface soil over a light colored silty clay loam or clay loam subsoil or a brown silty clay loam surface over a light brown gravelly silty clay loam subsoil. Above these are situated the rough mountainous areas. The heavy rainfall tends to develop some soil acidity varying with soil age and type of

vegetation. The recent stream bottoms are nearly neutral, while the old terrace and residual hill lands are more definitely acid.

4. Drainage. Drainage on some of the lands in Tillamook County is a major problem due to tides on lowlands along the coast and excessive rainfall over the whole area. Most of the drainage is accomplished by mean of dikes and tide gates. A part of the other lands adaptable for intensive agriculture could be drained with comparatively little expense.

5. Accessibility to Public Facilities and Markets. All of the lands classified as agricultural are accessible to hard surface or gravelled roads leading to market centers. Present school facilities are adequate to serve these areas. The major industry of the county is dairying with most of the milk delivered to cooperative cheese factories of which there are 17 scattered throughout the county.

Economic Factors

Present Land Use. An important consideration in the economic study of any county is the use of its land. In the development of a county its settlers tend to select and develop those lands which, in their judgment, are most productive for the intended use and are the more accessible to markets and other facilities. Experience, however, has proved that lands are often better adapted to uses other than those to which they were originally put. In some cases economic and physical factors have brought about conditions that make changes in land use essential to the securing of the best economic results.

Tillamook County, in common with other counties and districts, has experienced its mistakes in land settlement. Isolated scattered settlement have been made in various sections of the county in which it has been

impossible to develop self-supporting economic farm units without supplementary income from employment in the timber industry. With the removal of the timber, many of these settlers have been unable to make a living and have been thrown upon relief rolls. The purchasing of these scattered areas and the removal of the occupants to better lands by the Resettlement Administration is helping to solve this problem in Tillamook and other coast counties.

The agricultural and adjoining lands were mapped according to their present uses. The forest type data in predominantly forest areas were taken from the forest type map made by the Pacific Northwest Forest Experiment Station and corrected to January 1, 1934.

The data are presented in Figure 2 and show the following divisions:

1. Field crops, which consisted of land either in cultivation or plowable pasture. According to this survey, 27,550 acres come within this class.

2. Non-plowable pasture, comprising lands in pasture which have never been in cultivation. These areas aggregate 10,965 acres.

3. Urban and beach resort areas.

4. Forest land. These lands contain approximately 636,000 acres and are divided into large, medium, and small-sized timber; lowland hardwoods; recent, cut-over, and deforested burns.

5. Waste lands consisted principally of sand dunes along the coast with an occasional rocky patch in the mountain or swampy areas unfit for forest or other uses.

Land Ownership. The land ownership of the county is graphically shown in Figure 3. Data show that approximately 40 percent of the area

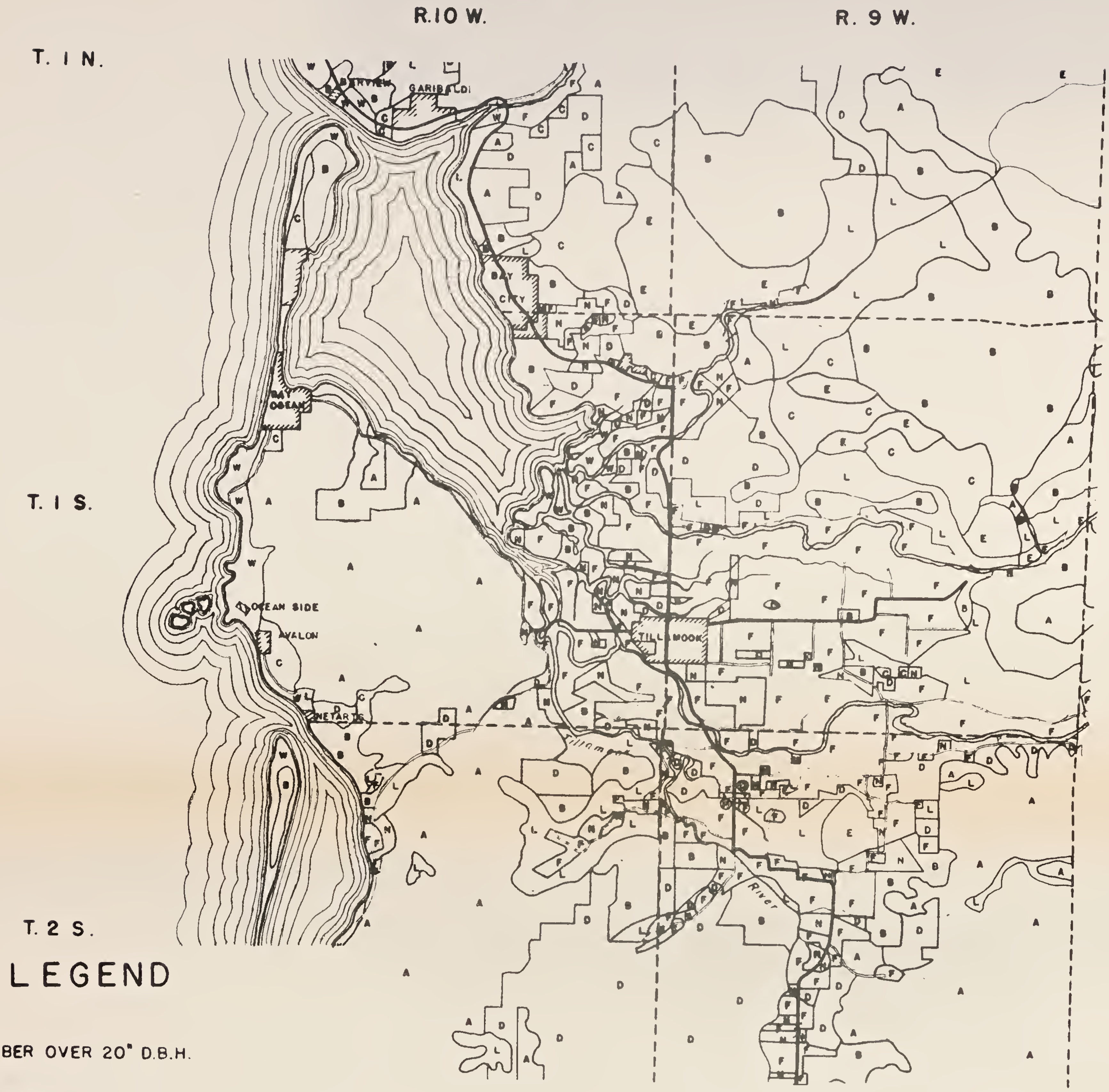
TILLAMOOK COUNTY, OREGON

PRESENT LAND USE

SCALE

0 ½ 1 2 3 4 MILES

NOVEMBER 1936



LEGEND

A	TIMBER OVER 20" D.B.H.
B	TIMBER 6"—20" D.B.H.
C	SEEDLINGS & SAPLINGS
D	LOGGED OFF LAND, BRUSH
E	DEFORESTED BURNS, FERN & FIREWEED
F	FIELD CROPS
L	LOWLAND HARDWOODS
N	NON PLOWABLE PASTURE
O	ORCHARDS
W	WASTE
⬚	TOWNS

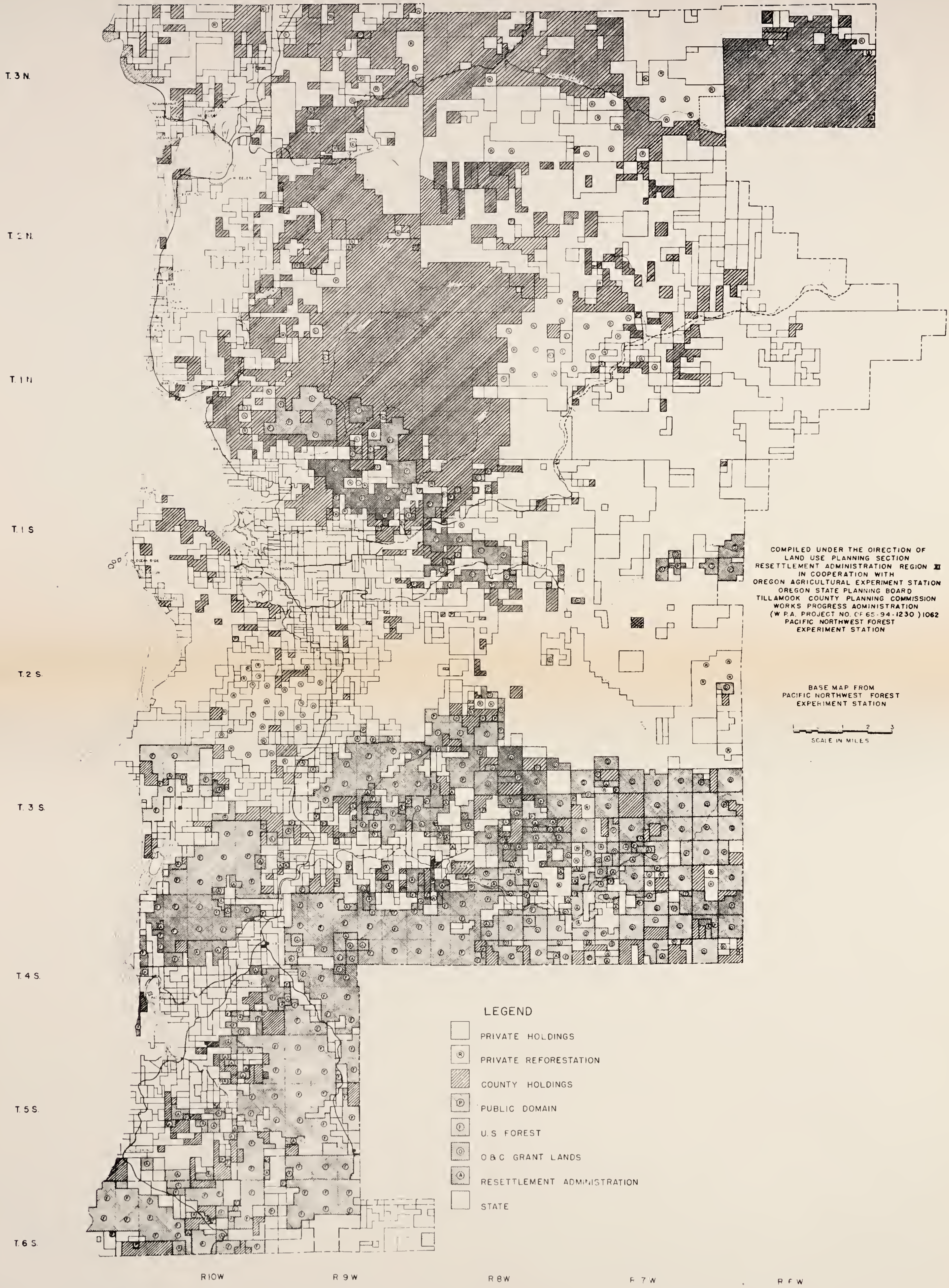
SUPERVISED BY
LAND USE PLANNING SECTION
RESETTLEMENT ADMINISTRATION, REGION XI
IN COOPERATION WITH
OREGON AGRICULTURAL EXPERIMENT STATION
OREGON STATE PLANNING BOARD
PACIFIC NORTHWEST FOREST EXPERIMENT STATION
TILLAMOOK COUNTY PLANNING COMMISION
W.P.A. PROJECT O.P. 65—94 1230-1062

BASE MAP AND FOREST TYPES ADAPTED
FROM PACIFIC NORTHWEST FOREST
EXPERIMENT STATION "FOREST. TYPE MAP"
CORRECTED TO JANUARY 1, 1934

PRINTS OF THIS MAP FOR THE ENTIRE COUNTY MAY BE OBTAINED ON THE SCALE OF ONE-INCH EQUALS - ONE-MILE, AT COST OF REPRODUCTION

FIGURE 2

RURAL LAND OWNERSHIP
TILLAMOOK COUNTY OREGON
1936



COMPILED UNDER THE DIRECTION OF
LAND USE PLANNING SECTION
RESETTLEMENT ADMINISTRATION REGION XI
IN COOPERATION WITH
OREGON AGRICULTURAL EXPERIMENT STATION
OREGON STATE PLANNING BOARD
TILLAMOOK COUNTY PLANNING COMMISSION
WORKS PROGRESS ADMINISTRATION
(W P.A. PROJECT NO. OF 65-94-1230) 1062
PACIFIC NORTHWEST FOREST
EXPERIMENT STATION

BASE MAP FROM
PACIFIC NORTHWEST FOREST
EXPERIMENT STATION

LEGEND	
☐	PRIVATE HOLDINGS
Ⓡ	PRIVATE REFORESTATION
▨	COUNTY HOLDINGS
Ⓟ	PUBLIC DOMAIN
Ⓕ	U.S. FOREST
Ⓞ	O & C GRANT LANDS
Ⓐ	RESETTLEMENT ADMINISTRATION
☐	STATE

FIGURE 3

of the county (including 30,000 acres under option to the Resettlement Administration) are in some kind of public ownership. Five percent of privately owned land has been placed under the state reforestation law. Data over a period of years disclose that public ownership of land is increasing rapidly due largely to cut-over lands forfeited to the county for unpaid taxes, and indications are that the county holdings of this tax-delinquent land will further increase as the timber is removed.

Public Improvements. Figures 4 and 5 show the distribution of public and private facilities in the various sections of the county, which for the most part cover only the more highly developed and thickly populated sections. The school map, Figure 6, shows that the population is scattered over a wider area than the public facilities, indicating that many of the rural homes, particularly those in the thinly populated districts, are without adequate public facilities.

Other Factors. Other factors taken into consideration were the increasing public lands, progress in reforestation of cut-over lands, and the development of potential recreational facilities.

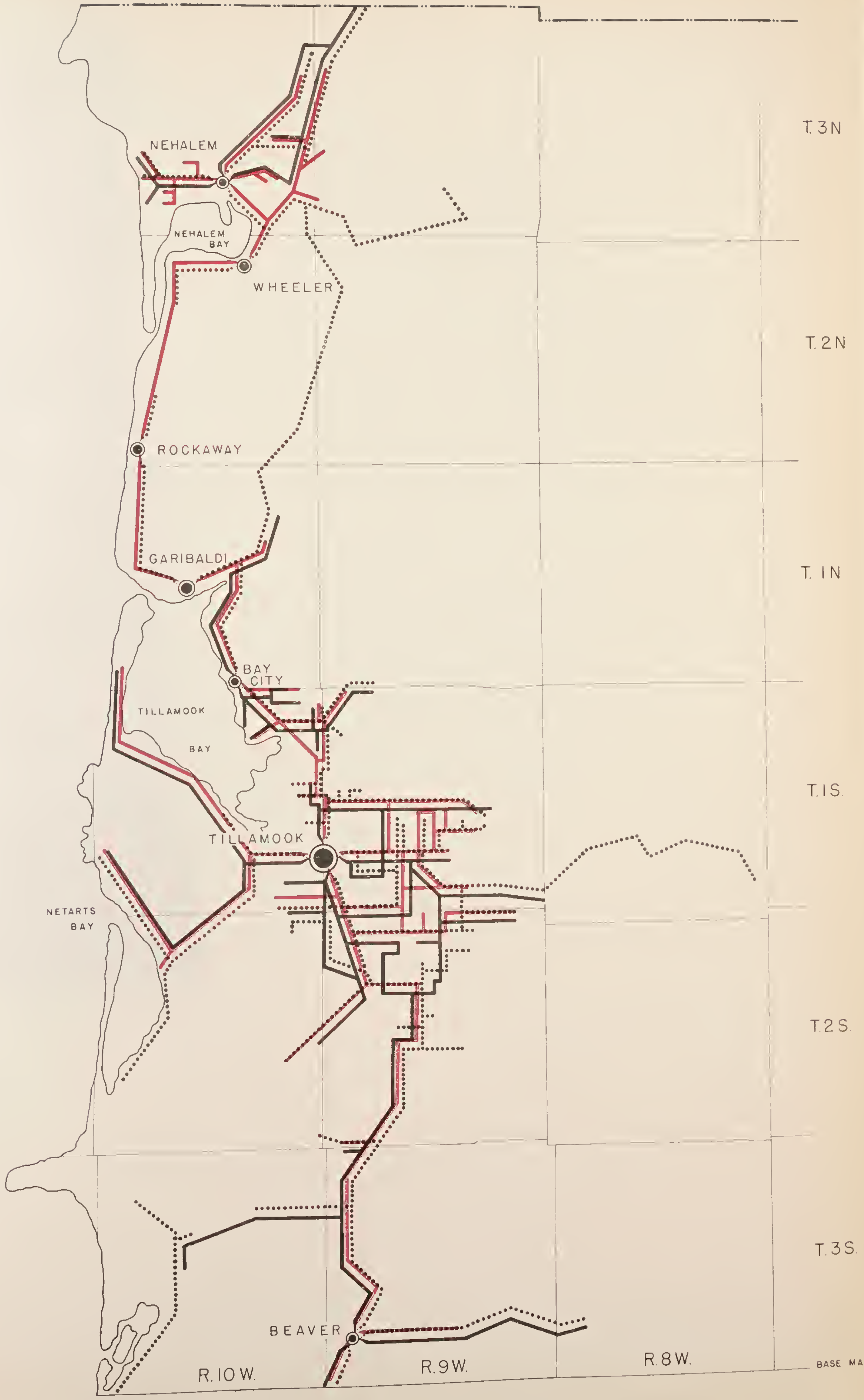
TRENDS IN LAND USE AND COUNTY DEVELOPMENT

Agriculture. The U. S. Census of 1930 classes 87,266 acres in Tillamook County as land in farms with 24,262 acres in improved farm land. The reconnaissance land use classification indicates 36,350 acres of present and potential agricultural land in the county suitable for farm crops. Of this acreage, 27,550 are utilized as farm land at the present time, leaving approximately 8,800 acres suitable for further development, an area equal to 32 percent of the present improved farm land.

PUBLIC UTILITIES

LOCATION OF TELEPHONE LINES POWER DISTRIBUTION LINES AND RURAL FREE DELIVERY ROUTES

JUNE 1936



.... TELEPHONE

🟥 POWER

▬ STAR ROUTE OR R F D.

A LAND USE STUDY OF TILLAMOOK COUNTY, OREGON

LAND USE PLANNING SECTION RESETTLEMENT ADMINISTRATION
COOPERATING AGENCIES · WORKS PROGRESS ADMINISTRATION
· OREGON STATE PLANNING BOARD ·

W P A PROJECT # 1062

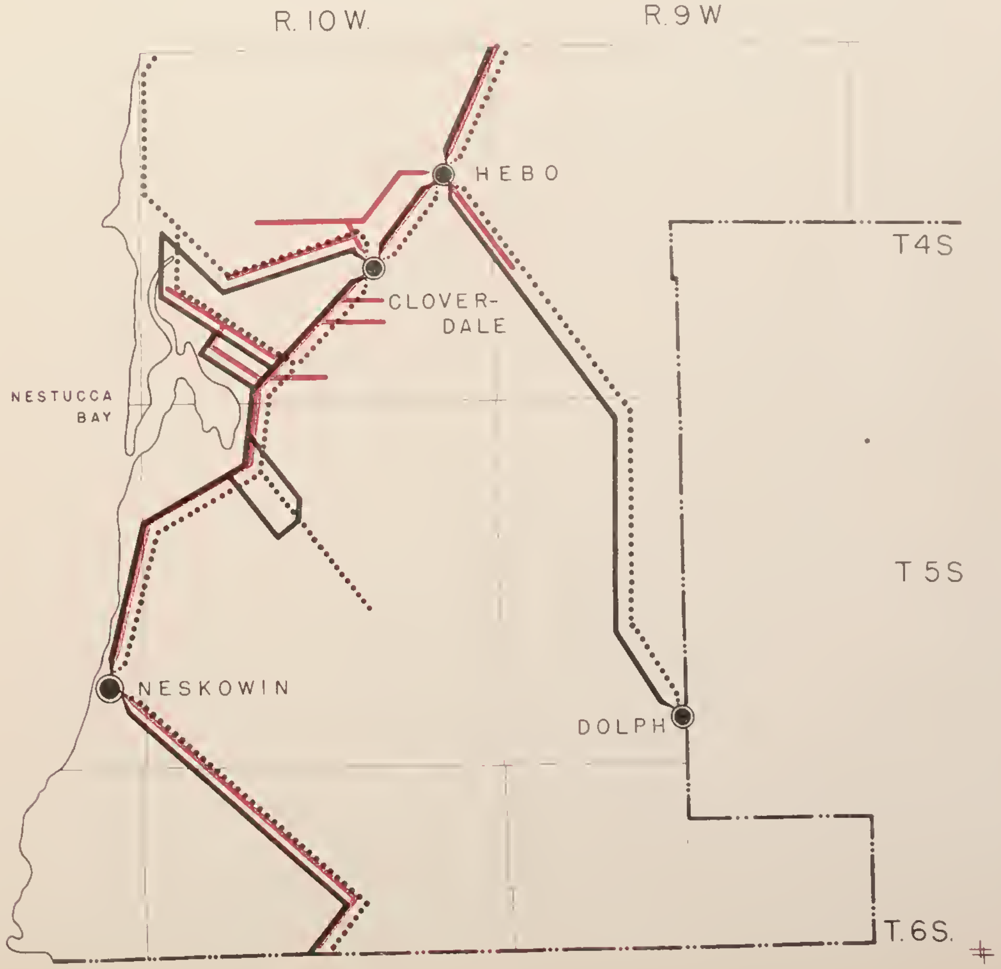
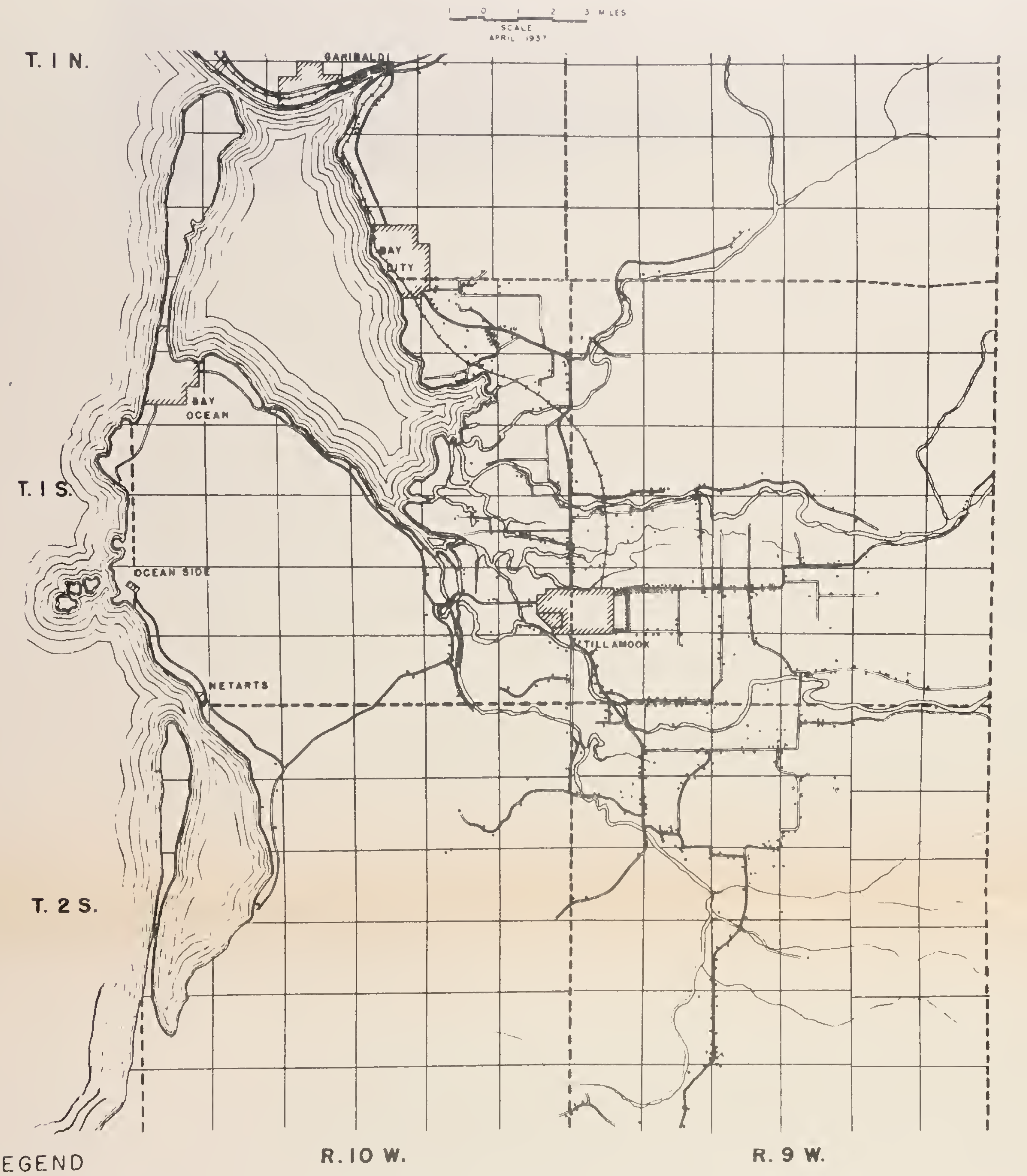


FIGURE 4

BASE MAP FROM U. S. FOREST SERVICE

PUBLIC AND PRIVATE IMPROVEMENTS

PRIVATE BUILDINGS, SCHOOLS, RAILROADS AND HIGHWAYS



LEGEND

▨ TOWNS AND URBAN AREAS
—— PAVED OR OILED ROADS
═══ GRAVEL OR DIRT ROADS
- - - - PROPOSED ROADS
++++ RAILROADS
■ FARMHOUSE OCCUPIED
□ FARMHOUSE UNOCCUPIED
■ SCHOOL IN USE
□ SCHOOL NOT IN USE
s■ STORE
c■ COMMUNITY HALL
p■ PROCESSING PLANT

A LAND USE STUDY OF TILLAMOOK COUNTY OREGON

BY

LAND USE PLANNING SECTION RESETTLEMENT ADMINISTRATION
COOPERATING AGENCIES: WORKS PROGRESS ADMINISTRATION-OREGON STATE PLANNING BOARD-TILLAMOOK COUNTY PLANNING COMMISSION-OREGON AGRICULTURAL EXPERIMENT STATION-PACIFIC NORTHWEST FOREST EXPERIMENT STATION

WPA PROJECT # 1062

BASE MAP FROM U S FOREST SERVICE

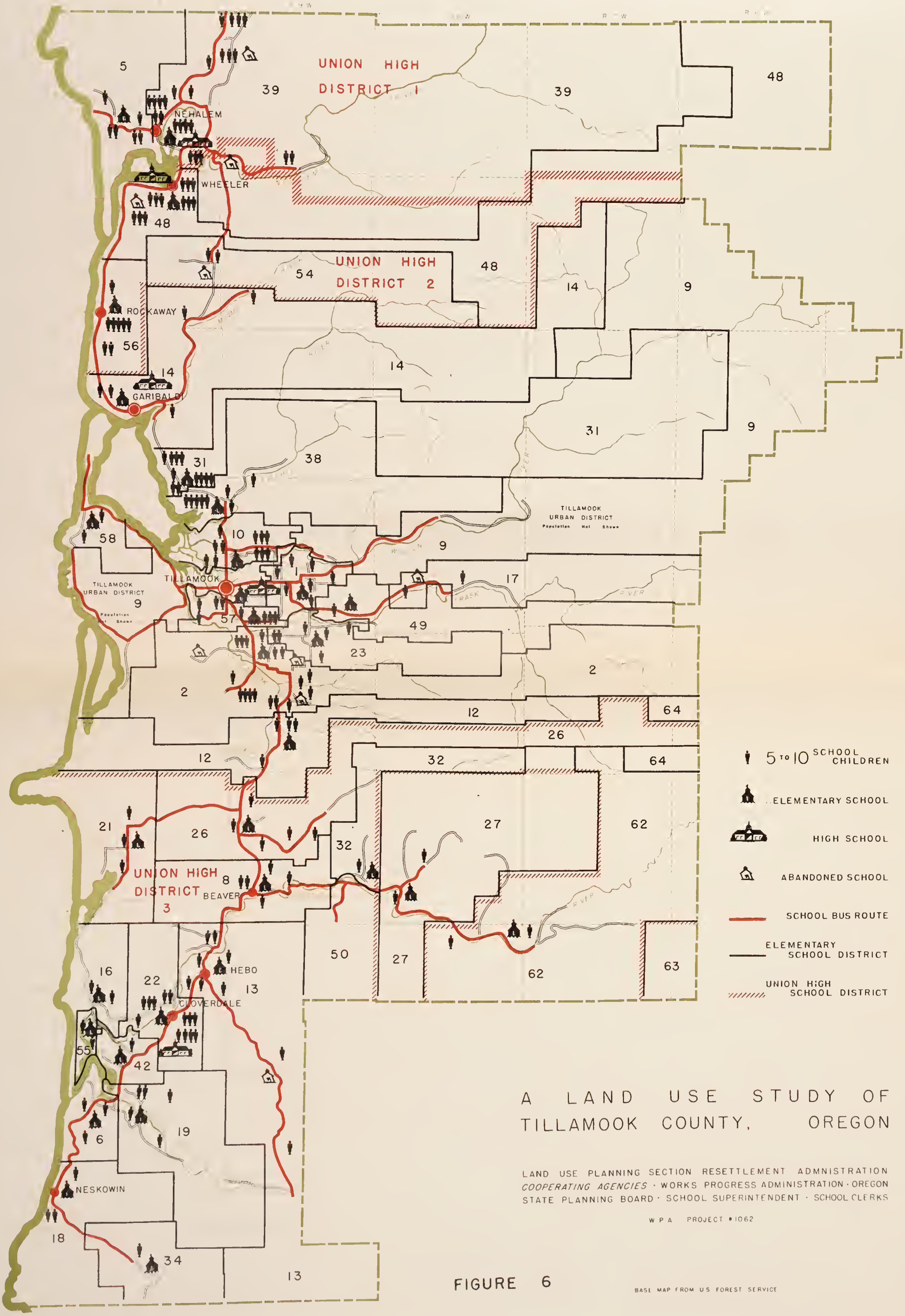
PRINTS OF THIS MAP FOR THE ENTIRE COUNTY MAY BE OBTAINED ON THE SCALE OF ONE-INCH-EQUALS-ONE-MILE, AT COST OF REPRODUCTION

FIGURE 5

SCHOOLS

DISTRIBUTION OF SCHOOL CHILDREN
LOCATION OF DISTRICTS
SCHOOLS AND BUS ROUTES

1936



A LAND USE STUDY OF
TILLAMOOK COUNTY, OREGON

LAND USE PLANNING SECTION RESETTLEMENT ADMNISTRATION
COOPERATING AGENCIES · WORKS PROGRESS ADMINISTRATION · OREGON
STATE PLANNING BOARD · SCHOOL SUPERINTENDENT · SCHOOL CLERKS

W P A PROJECT #1062

FIGURE 6

BASE MAP FROM U S FOREST SERVICE

The chief farming enterprise of the county is dairying. Due to the mild winters and abundant rainfall, it is possible to pasture cattle the greater part of the year.

The number of farms in the county has increased from 631 in 1900 to 889 in 1935.* During this same period the average acreage per farm has decreased from 161 to 98, and the improved farm land per farm was decreased from 45 to 27 acres. The clearing of new land for farming has barely kept pace with the area of old land allowed to revert to brush and timber growth on abandoned homesteads and on isolated tracts.

Tillamook County produces a portion of its hay but practically none of the grains, mill feeds, or straw used by the dairies. The necessary hay and other products imported during the past several years have cost the dairymen an average of $228,600 per year.**

According to data presented in Table 1 below, only slight changes have occurred in the livestock population of the county from 1920 to 1935 with the exception of the decrease in the number of horses. No data on the number of sheep in the county for the years 1920 and 1925 are available.

During the year 1935, Tillamook County produced 73,000,000 pounds of milk, the bulk of which was used in the manufacture of 7,500,000 pounds of "Tillamook" cheese in their 17 cooperative cheese factories. From 1931 to 1935, inclusive, Oregon annually shipped more cheese into the San Francisco and Los Angeles markets than any other state, with the greater part of the Oregon cheese coming from Tillamook County.

---

* U. S. Census of Agriculture.

** Report of the Crops Committee, Tillamook County Agricultural Outlook Conference, Tillamook, March 17, 1936.

Table I. Tillamook County Livestock*

Livestock	1920	1925	1930	1935
Horses	1,296	1,072	909	894
Mules	15	18	17	19
Cattle	14,650	16,044	16,373	16,749
Sheep	--	--	696	341
Swine	3,502	2,677	4,939	3,180

Table II. Acreage of Hay Crops, Corn, and Potatoes

Tillamook County, Oregon*

Crop	1919	1924	1929	1934
Total Hay Crop	10,648	9,595	11,024	11,687
Timothy	1,189	123	845	84
Clover	113	94	99	69
Alfalfa	32	1	77	4
Tame Grasses	6,231	8,448	6,763	8,952
Wild Grasses	882	644	1,375	
Small Grains for Hay	2,050	285	1,843	2,571
Potatoes	223	133	143	175
Corn	--	9	18	24

There appears to be an opportunity for the production of forest products in connection with farming. Particularly in the southern part of the county, alder restocks naturally and grows well on lands usually too rough or poor to farm. Grown under conditions as found here, it can be marketed usually at fifty years of age or less. Logs can be marketed that are small in diameter and short in length, and usually the logging operations can be handled at small cost by one man and a team.

---

* U. S. Census of Agriculture.

Lumber Industry. The lumber industry is one of the major industries in the county, but owing to recent heavy burns, it has suffered a serious setback. The disastrous fire in Tillamook County in 1933 burned over one-third of the area of the county which contained 8,671,694,000 board feet of merchantable timber. A large part of this burned-over timber could be salvaged if it were readily accessible. But owing to lack of roads and unfavorable market conditions, timbermen have estimated that probably 75 percent of the damaged timber will deteriorate below market standards before it can be removed.

According to data in the assessor's records, there were 419,037 acres of timber land in the county in 1920; 343,876 acres in 1930; and 266,744 acres in timber in 1936. This indicates a decrease in the timber acreage of 18 percent between 1920 and 1930 and a decrease of 22 percent between 1930 and 1936. The larger decrease during the latter period is primarily due to the 1933 fire.

Due to fluctuations in prices of timber products, variations in methods of timber assessment, and losses by fire, it is difficult to get a true picture of the changes in timber values from the tax assessments. On a true valuation basis, as estimated by the State Tax Commission, timber values in the county increased 38 percent between 1920 and 1930 in the presence of an 18 percent decrease in acreage during this period. During the period 1930 to 1936, however, a 22 percent decrease in timber acreage was accompanied by a 51 percent decrease in valuation.

---

* Pacific Northwest Forest Experiment Station, February .

At the present time (1937) 106,875 acres of forest lands, equal to 15 percent of total county acreage, have been placed in reforestation under the state reforestation law.* Approximately 68,000 acres of this land belong to the county, with the balance in private ownership.

There are also 63,836 acres in the Siuslaw National Forest and 55,835 acres in other Federal ownership in addition to 30,000 acres which have been optioned to the Resettlement Administration.

After the tax sales in 1936, Tillamook County owned 145,700 acres of rural lands. Practically all of these lands are within the forest areas. The assessor's rolls show that of the county-owned lands, 47 percent have been placed in reforestation under the state law, 41 percent at the time of tax foreclosure were assessed as timber land, and 11 percent as non-tillable. Only 237 acres of county-owned lands are classed as tillable land. This indicates very clearly the class of land that is reverting to county ownership. According to the last county assessment, the total amount of unpaid taxes, penalty and interest, against the county-owned land averaged slightly less than $1.60 per acre.

One of the major problems of the county in the management of its timber land is fire prevention. Forest reproduction can never be successfully carried out unless fires can be prevented.

According to the records of the Pacific Northwest Forest Experiment Station, there were in Tillamook County, as of January 1, 1934, slightly in excess of ten billion board feet of merchantable timber consisting

---

* This law is designed to encourage owners of timber land to retain title to their lands through placing small annual forest fee (5 cents per acre) against the lands and providing for a 12½ percent income to the county at the time the timber is cut, in lieu of annual taxes.

principally of Douglas fir, both old and second growth; sitka spruce; hemlock; cedar; and red alder. Studies carried on by the station on timber growth in the Douglas fir region indicate that the potential annual growth on the commercial forest land in Tillamook County through intensive forest management might reach 262,750,000 board feet which far exceeds the present growth. In computing the potential annual growth of this region, all of the commercial coniferous forest land in each site class was assumed to be occupied by immature stands averaging 75 percent of normal stocking, among which all age classes up to rotation age are equally represented. This computation is based on all trees 15.6 inches or more in diameter breast-high, containing at least one 32-foot log with a 12-inch top diameter inside bark. This utilization standard is designed to approximate the current saw log utilization in second growth stands in the Douglas fir region.

Assuming an annual production of 262,000,000 board feet on a sustained yield basis for the county, the lumber and service industries could sustain a population of approximately 12,000 people. In 1933, with a cut of 51,664,000 board feet (latest available figures) the lumber and service industries were supporting approximately 2,400 people.

Recreation. Tillamook County has the natural features for becoming one of the outstanding recreational areas of the Pacific Northwest. It has fifty miles of coast line with many fine beaches and good building sites, many of which are only partly developed. Of the three large bays, Nehalem, Netarts, and Tillamook, the Tillamook Bay is the largest on the Oregon coast. Here boating and fishing may be enjoyed. Several large mountain streams notably the Nehalem, Wilson, Trask, Tillamook and Nestucca empty into bays and afford both trout and salmon fishing.

In the fall and early winter months waterfowl are plentiful on the bays and rivers, and the mountains afford opportunities for the hunting of deer, bear, and upland birds. The completion of the Wilson River Highway will place Tillamook County beaches within a two-hour drive from Portland.

The county has acquired the ownership of many miles of river frontage with the intention of developing their recreational values.

PUBLIC FINANCE*

County Indebtedness. The total net indebtedness in Tillamook County, including bonds and warrants outstanding for public school, road, bridge, and general county funds debts, and Port District debts, has been decreased from $1,850,406 in 1926 to $809,807 in 1936.** Expressed in percentage of the equalized valuation of the county, the net indebtedness for the latter year represented 6.3 percent of the county's valuation, whereas the equivalent net indebtedness of all counties in the state for the same year represented 5.4 percent of the equalized valuation of all counties.

Land Assessment. Assessed values on land should be based upon their productivity, use, and location. In Tillamook County the highest assessed values are in the highly developed farming districts as shown in Figure 7, where values in some instances exceeded $93 per acre. Assessed values in

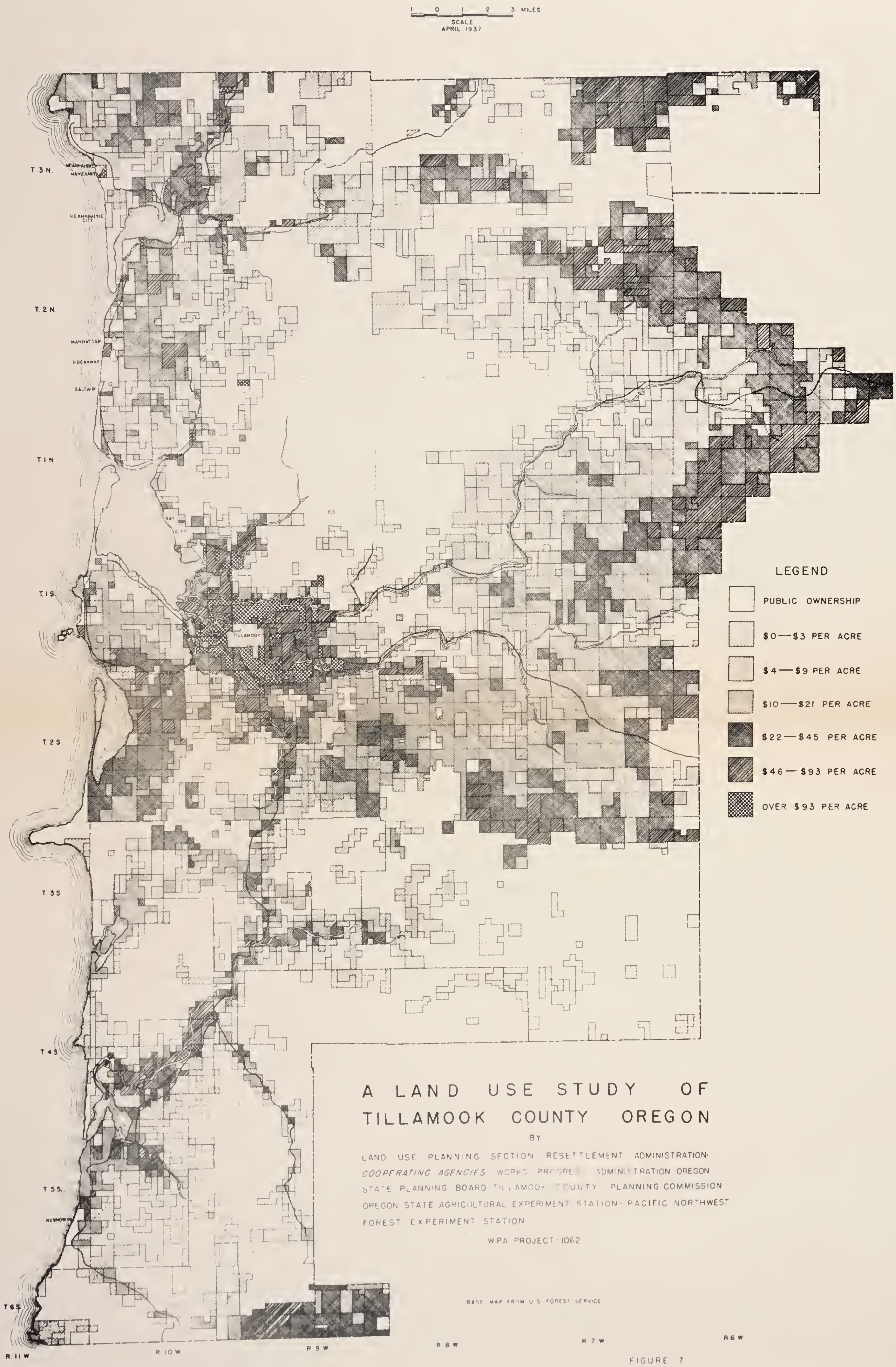
---

* Dr. W. H. Dreesen of the Oregon State College assisted in preparing material on public finance.

** Biennial Report of State Treasurer. In addition to these debts there was a debt on irrigation projects in the state for $17,628,577 and for water and drainage projects of $3,015,974 in 1936. For the same year there was a total indebtedness of $46,031 for drainage and water districts in Tillamook County.

ASSESSED LAND VALUES

AVERAGE ASSESSMENT OF RURAL LANDS BY 40's



A LAND USE STUDY OF
TILLAMOOK COUNTY OREGON

BY

LAND USE PLANNING SECTION RESETTLEMENT ADMINISTRATION·
COOPERATING AGENCIES· WORKS PROGRESS ADMINISTRATION OREGON
STATE PLANNING BOARD TILLAMOOK COUNTY PLANNING COMMISSION
OREGON STATE AGRICULTURAL EXPERIMENT STATION· PACIFIC NORTHWEST
FOREST EXPERIMENT STATION

WPA PROJECT·1062

BASE MAP FROM U.S. FOREST SERVICE

FIGURE 7

the forest areas vary from less than $3 per acre to over $46, depending upon whether the land is timbered or cut-over.

Assessed Values. The assessed valuation of taxable property in Tillamook County reached its peak of $30,829,298 in the year 1924. Thereafter a gradual reduction, lowering it to $26,784,645 by 1930, was followed by a more rapid decline bringing the valuation to the low point of $12,620,115 in the year 1936. To the degree that the decline in values is due to a lowering of the ratio of assessed to real values as estimated by the State Tax Commission it is more apparent than real. The major cause of the drop, however, is due to a decrease in timber values. Continuous logging and the disastrous fire of 1933 covering an area of 239,000 acres are primarily responsible.

Tax Levies. Figure 8 shows the trend in tax levies on equalized rural valuations for state, county, school, road, debt service, and miscellaneous purposes for the assessment years 1910 to 1934, inclusive. The average total levy increased from 20 mills in 1910 to a high mark of 48.84 mills in 1926. From this high the levy has dropped back to 46.59 mills in 1934, a decrease of 4.6 percent. Over the same period the levies for school purposes were increased by 7.44 mills and the levies for debt service by 3.32 mills. Levies for state, county, roads, and miscellaneous purposes were all decreased between the years 1926 and 1934.

Tax Collections. The status of tax collections in a county is generally one of the best barometers of its economic conditions. Collections in Tillamook County for the period 1927 to 1936, inclusive, are presented in Figure 9. Current taxes together with back taxes collected for the years 1927 to 1930 were approximately equal to the annual current levies for those years. The effect of the depression became evident in the year

AVERAGE TAX LEVIES ON EQUALIZED RURAL VALUATIONS
FOR
STATE, COUNTY, SCHOOL, ROAD, DEBT SERVICE,
AND MISCELLANEOUS PURPOSES FOR THE
ASSESSMENT YEARS 1910-1934, INCLUSIVE

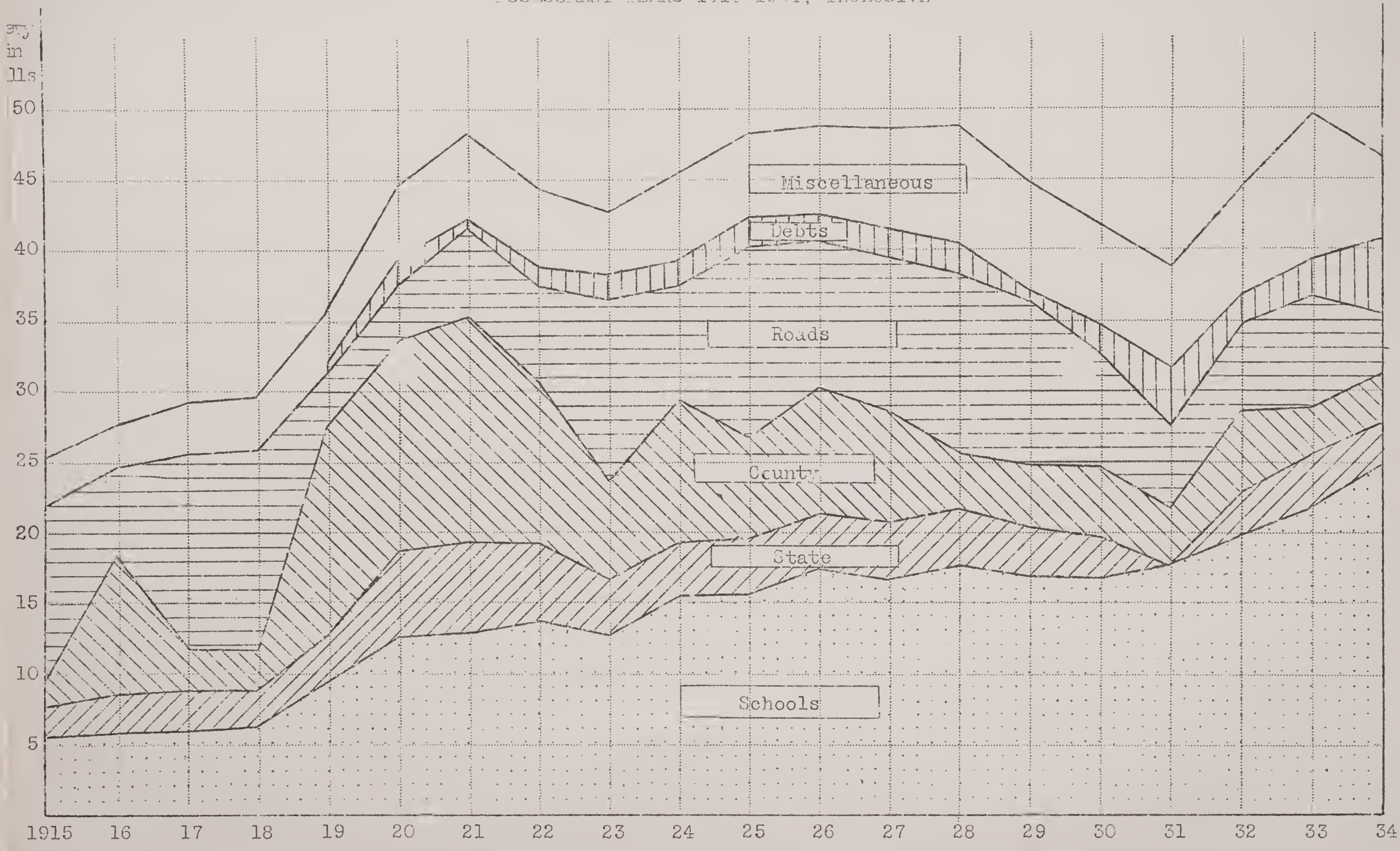


Figure 8

COLLECTION OF CURRENT AND BACK TAXES IN
TILLAMOOK COUNTY OREGON 1927 - 1935

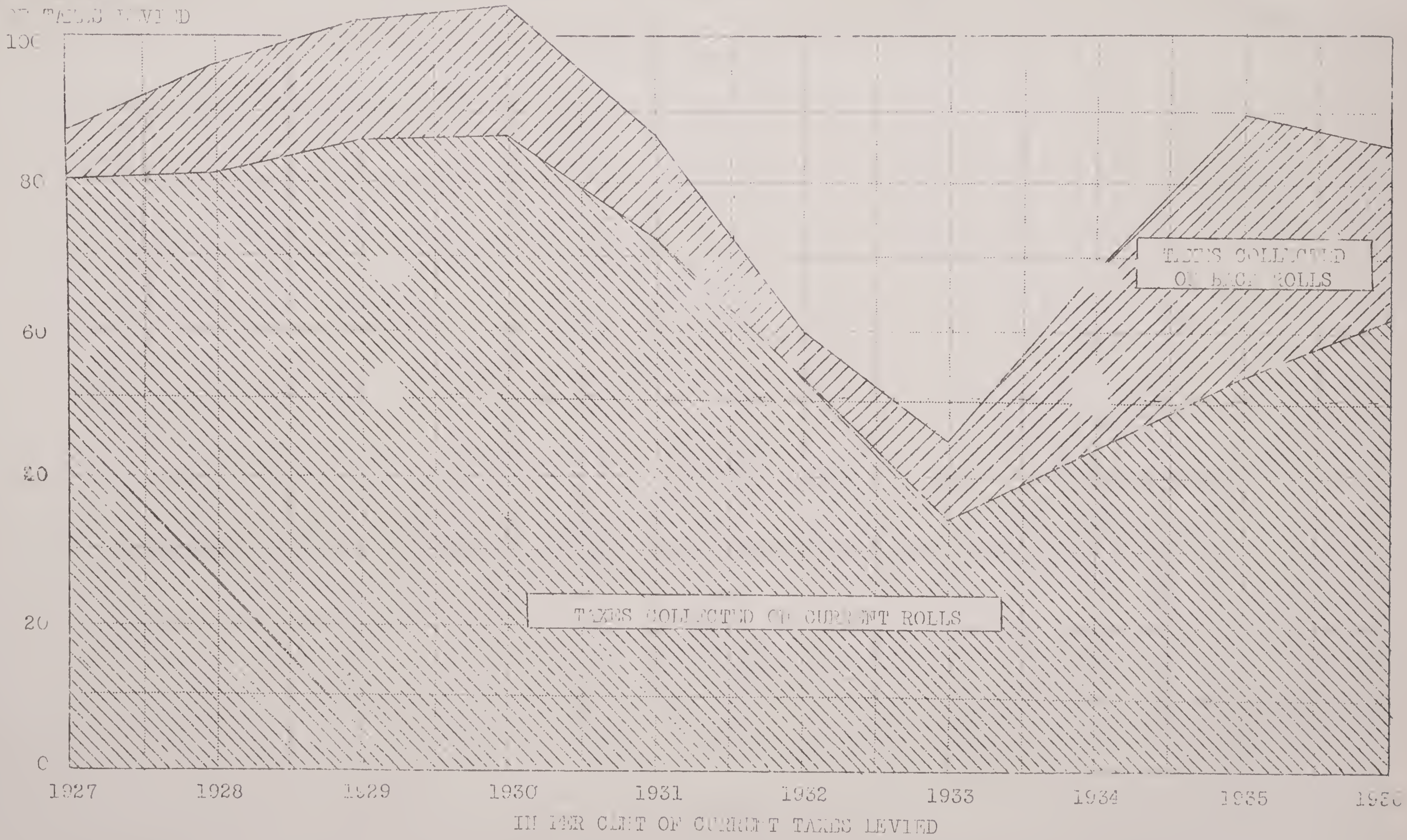


Figure 9

1931 when the aggregate of current and back tax collections fell to about 86 percent of the current levies. In 1932 aggregate collections fell to 59 percent of the current levies, and in the following year they fell to 45 percent. Beginning with the year 1934 the collections show an increase, reaching 69 percent of current levies, and in 1935 the aggregate collections, current and back taxes, exceeded 89 percent of all taxes levied for that year. The collections for 1936 indicate a slight recession from those of the year before.

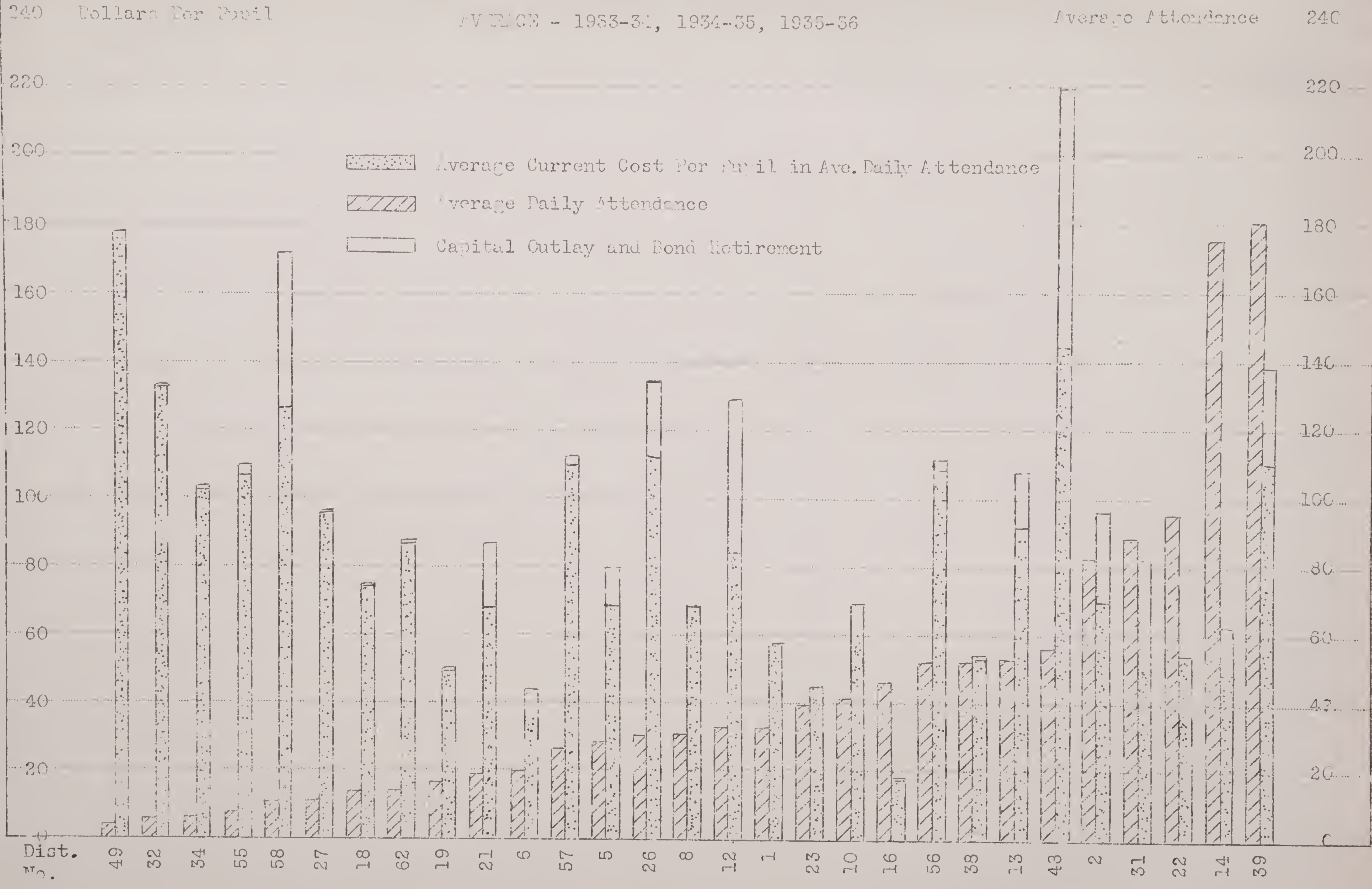
RURAL ELEMENTARY SCHOOLS

School district boundaries, distribution of school children, and location of schools and bus routes have been shown in Figure 6. The strange pattern of school district boundaries is a result, of course, of efforts to distribute the available tax base, which has been chiefly timber.

School costs vary considerably for the different districts of the county. Figure 10 shows the average daily attendance and cost per pupil in average daily attendance. All figures used in this chart, including costs and attendance, are based upon the three-year averages 1933 to 1936. The bar chart indicating costs consists of all current costs, capital outlays, and bond retirement. While the latter item is not strictly a cost from an accounting standpoint, it is here shown in those districts where it occurred. In no instance has depreciation on plant and equipment been taken into consideration except as indicated by charges for bond retirement and capital outlay explained above. Four districts, 17, 42, 50, and 54, have been omitted from the tabulation because their schools have been closed and their pupils are transported to other districts.

AVERAGE DAILY ATTENDANCE AND AVERAGE EXPENDITURE PER PUPIL
IN ELEMENTARY SCHOOLS OF TILLAMOOK COUNTY

AVERAGE - 1933-34, 1934-35, 1935-36



District 9, comprising the city of Tillamook, has also been omitted because most of its pupils live within the city even though the district's boundaries extend to outlying areas. Schools in Districts 31, 39, and 48, although containing incorporated towns, are included in Figure 10 since these districts serve extended rural areas (see Figure 6). Because of the generally higher standard of service in the form of more varied curricula, better plants, and better paid teachers provided in these schools, comparison of costs with other districts should be made with caution.

The per pupil costs gradually decrease with increasing enrollment up to approximately fifty. Beyond this point increase in enrollment appears to exert little influence upon per pupil costs, as shown in Figure 10. The highest cost per pupil, $177.12, was found in District No. 49 with an average daily attendance of 3.9 pupils, the lowest attendance of any district in the county. Practically all of this expense was incurred for instruction. The lowest per pupil cost, $18.04, was found in District No. 16 with an average daily attendance of 45.84 pupils.

The equalized valuation per census child varied from a low of $1,401 in District No. 22 to a high of $25,985 in District No. 49. The county average of $3,877 is slightly higher than in other coast counties and is also in excess of the state average of $3, 74.

With the completion of the Resettlement Administration purchase program in the southern part of the county as planned, it should be possible to permanently eliminate Districts No. 62 and 63. There are at present no inhabitants in the latter district, and its school has been closed for three years. In District No. 62 there are at present 19 occupied dwellings, twelve of them housing 25 pupils. This district has been receiving

funds under the State Elementary and County School Fund laws considerably in excess of its contribution under these laws. It may also be possible to eliminate District No. 50 or consolidate it with other districts. Its pupils are transported, at present, to the Beaver District.

LAND USE POLICIES

Tillamook County is facing four major economic problems, viz: a declining tax base, the disposition of her county-owned lands, the reduction of public costs in certain areas of scattered settlement, and the rehabilitation of stranded groups in industrially abandoned localities. These problems are closely interrelated, having their origin for the most part in the depletion of the timber resources. As indicated in a previous paragraph, continuous logging and the disastrous fire of 1933 covering an area of 239,000 acres are primarily responsible for the excessive decrease of 53 percent in the taxable values in the county between 1930 and 1936. Burned-over and logged-off lands tend to be forfeited to the county for unpaid taxes, and the abandonment of logging camps and saw mills leaves the settlers on marginal lands or inadequate acreages with little supplementary support if not completely stranded.

A first step in checking the declining tax base would, therefore, appear to consist in checking a further decline in the timber resources in the county. Placing the timber lands on a sustained yield basis should accomplish two results, viz: in time, checking further shrinkage in the tax base, and ultimately adding materially to the permanent income of the county.

The county tax base could be increased through land clearing and irrigation. The present survey indicates that 8800 acres of undeveloped land in the county have soil adequate for intensive agricultural uses. The development of this land by clearing and draining would add to the tax base in increased land values, buildings and livestock incidental to the major purpose of providing a livelihood for additional families. Irrigation for summer pasture may be extended, thereby increasing the farm income. It is essential that public service be adjusted to the desirable uses of land in the county.

Disposition of the county-owned lands is one of the major problems to be solved. As has been pointed out, the county at present (1937) owns 145,700 acres of land, for the most part cut-over and burned-over timber areas. As private owners remove additional timber, the county-owned acreage will unquestionably increase.

Three methods of management of these land holdings have been suggested.

1. Organize a county forestry department.
2. Place under control of the State Forestry Department.
3. Place under control of the U. S. Forest Service.

The principal difficulties connected with county control of these widely scattered lands are the almost complete loss of revenue to the county during the long period of time required for a new crop of timber to reach merchantable size and the expense of management, including fire prevention.

The state forest laws provide that if county forest lands are placed under control of the State Department of Forestry, an annual revenue of **five cents** per acre shall be paid to the county plus $12\frac{1}{2}$ percent of the gross income from the land, and that the remaining $87\frac{1}{2}$ percent of the

income from the land shall be placed in the state irreducible school fund. No county lands have as yet been turned over to the state under this law.

The U. S. Forest Service returns to the county 25 percent of the gross revenue from forest land under its control situated within the county and expends an additional 10 percent of the income for roads and trails. To place county forest lands under Federal administration would require joint action by county, state, and Federal authorities. It is not feasible, of course, for the Federal government to administer scattered small tracts of forest land at considerable distance from present national forests.

Curtailment of public expenses could be effected by the removal of scattered settlers from isolated areas where public service costs for roads and bridges, schools and relief are unusually high. The land purchase program of the Resettlement Administration is materially assisting in the solution of this problem in Tillamook County. Further settlement in such isolated areas as would unduly increase public costs should be prohibited. Review of Oregon laws pertaining to the subject indicates that counties may refuse to sell lands for agricultural use if settlement of such lands would be undesirable.

The rehabilitation of peoples stranded in areas abandoned by logging camps and saw mills is another problem difficult to solve. Some of these people locate elsewhere as opportunity for employment is offered. A considerable number will remain dependent upon public relief.

Many of these problems are recognized by the Tillamook County Planning Commission as shown by the following resolutions passed at one of their recent regular meetings.

RESOLUTION

At a joint meeting of the Tillamook County Planning Commission and the county court, in regular session held May 6, 1937, with members of the Resettlement Administration in attendance, the desirability of encouraging the removal of homesteaders and others living in remote districts in Tillamook County to lands that are productive and accessible and discouraging future settlement on lands that are unproductive and inaccessible to public facilities was considered, and after a thorough discussion of the problem the following resolutions were adopted:

> RESOLVED, that the land use study and land classification maps which have been prepared are approved and recommended as a basis for comprehensive development of the lands of Tillamook County to the end that they may not only afford taxable wealth to supplant our fast diminishing taxable valuation but also provide support for the many families they are capable of supporting when fully developed, and
>
> BE IT FURTHER RESOLVED, by the Tillamook County Planning Commission that the work of the Resettlement Administration in purchasing lands occupied by settlers in remote districts, who are dependent upon relief and demanding expenditure of public funds for roads and education of their children, and in reestablishing such settlers as far as possible on lands that are productive where they have a chance to become self-supporting is endorsed, and
>
> BE IT FURTHER RESOLVED, that a land-clearing project in agricultural areas should receive consideration as a step in permanently bringing into production those lands which are capable of producing on a par with the best agricultural lands in Tillamook County and at the same time increase the tax base.

Said resolution upon motion duly made and seconded was unanimously adopted.

TILLAMOOK COUNTY PLANNING COMMISSION

By C. H. Barrick
Vice-Chairman

C. H. Coe
Acting Secretary

LIBRARY OF CONGRESS
0 022 040 834 6